

AMENDMENTS TO THE CLAIMS

Please amend the claims to be as follows, where markings are included to show changes made.

1. (currently amended) A method of broadcasting packets through a network of switches, the method comprising:
receiving a packet to broadcast through the network of switches;
selecting a broadcast path from a plurality of generated broadcast paths;
creating a broadcast path tag associated with the selected broadcast path;
inserting the broadcast path tag into the packet;
determining port(s) by which to forward the packet; and
transmitting the packet, with the broadcast path tag embedded therein, via the port(s) to next switch(es) in accordance with the selected broadcast path,
wherein the packet is forwarded outside the network of switches by removing the broadcast path tag from the packet and broadcasting the packet (with the broadcast path tag removed) outside of the network of switches..
2. (original) The method of claim 1, wherein the broadcast path comprises a spanning tree, and wherein the method is performed by an owner switch at a root of the spanning tree.
3. (original) The method of claim 1, wherein the broadcast path tag comprises a source switch identifier, a code indicating a broadcast, and a path identifier.

4. (currently amended) ~~The method of claim 1, further comprising:~~ A method of broadcasting packets through a network of switches, the method comprising:
receiving a packet to broadcast through the network of switches;
selecting a broadcast path from a plurality of generated broadcast paths;
creating a broadcast path tag associated with the selected broadcast path;
inserting the broadcast path tag into the packet;
determining port(s) by which to forward the packet;
transmitting the packet, with the broadcast path tag embedded therein, via
the port(s) to next switch(es) in accordance with the selected
broadcast path;
receiving the packet by a hop switch;
reading the broadcast path tag embedded therein;
determining port(s) by which to forward the packet; and
transmitting the packet, with the broadcast path tag embedded therein, via
the port(s) to next switch(es) in accordance with the selected
broadcast path.
5. (original) The method of claim 4, wherein the port(s) are determined by looking up the broadcast path tag in a tag table.
6. (original) The method of claim 4, further comprising:
receiving the packet by a destination switch;
reading the broadcast path tag embedded therein; and
determining that an end of a branch of the broadcast path has been reached.
7. (currently amended) The method of ~~[[claim 1]]~~ claim 4, wherein the packet is forwarded outside the network of switches by removing the broadcast path tag from the packet and broadcasting the packet (with the broadcast path tag removed) outside of the network of switches.

8. (original) The method of claim 1, wherein the method comprises multipath broadcasting in that different broadcast paths are selected to broadcast packets depending on specific criteria.
9. (currently amended) ~~The method of claim 8,~~ A method of broadcasting packets through a network of switches, the method comprising:
receiving a packet to broadcast through the network of switches;
selecting a broadcast path from a plurality of generated broadcast paths;
creating a broadcast path tag associated with the selected broadcast path;
inserting the broadcast path tag into the packet;
determining port(s) by which to forward the packet; and
transmitting the packet, with the broadcast path tag embedded therein, via
the port(s) to next switch(es) in accordance with the selected
broadcast path,
wherein the method comprises multipath broadcasting in that different
broadcast paths are selected to broadcast packets depending on
specific criteria, and
wherein the criteria relates to a type of the packet.
10. (currently amended) ~~The method of claim 8,~~ A method of broadcasting packets through a network of switches, the method comprising:
receiving a packet to broadcast through the network of switches;
selecting a broadcast path from a plurality of generated broadcast paths;
creating a broadcast path tag associated with the selected broadcast path;
inserting the broadcast path tag into the packet;
determining port(s) by which to forward the packet; and
transmitting the packet, with the broadcast path tag embedded therein, via
the port(s) to next switch(es) in accordance with the selected
broadcast path,

wherein the method comprises multipath broadcasting in that different broadcast paths are selected to broadcast packets depending on specific criteria, and

wherein the criteria relates to load balancing across the different broadcast paths.

11. (currently amended) A switching device configured to be a member of a switching mesh, the switching device comprising:
a plurality of ports; [[and]]
a switch control device coupled to the plurality of ports,
wherein the switch control device is configured to provide multiple broadcast paths from a source switch through the switching mesh;
and
a modified layer 2 MAC table which includes a path tag.
12. (original) The switching device of claim 11, wherein the switch control device comprises an application specific integrated circuit (ASIC).
13. (original) The switching device of claim 11, wherein the switch control device comprises a central processing unit configured to execute sequences of instructions.
14. (original) The switching device of claim 11, wherein the switching device holds full knowledge of the multiple broadcast paths.
15. (canceled)
16. (currently amended) The switching device of ~~claim 15~~ claim 11, further comprising:
a tag table referenced by the path tag.

17. (original) The switching device of claim 16, wherein the tag table comprises a broadcast flag.
18. (original) The switching device of claim 17, wherein if the broadcast flag is set for an entry in the tag table, then the path tag of the entry is utilized to index into a broadcast port map filter.

Claims 19-22. (canceled)